



**UNIVERSITI PUTRA MALAYSIA**

***TERRACE AND SEMI-DETACHED HOUSE RENOVATION COMPLIANCE  
WITH BUILDING CONTROL REGULATIONS IN MALAYSIA***

**BIBI KHAIRANI BINTI MOHAMED SABRI**

**FRSB 2018 19**



**TERRACE AND SEMI-DETACHED HOUSE RENOVATION COMPLIANCE  
WITH BUILDING CONTROL REGULATIONS IN MALAYSIA**

**By**

**BIBI KHAIRANI BINTI MOHAMED SABRI**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra  
Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of  
Philosophy**

**July 2018**

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia.

Copyright © Universiti Putra Malaysia



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in  
fulfilment of the requirement for the degree of Doctor of Philosophy

**TERRACE AND SEMI-DETACHED HOUSE RENOVATION COMPLIANCE  
WITH BUILDING CONTROL REGULATIONS IN MALAYSIA.**

By

**BIBI KHAIRANI BINTI MOHAMED SABRI**

**July 2018**

**Chair: Associate Professor Norsidah Ujang, PhD**  
**Faculty: Design And Architecture**

Poor compliance to regulation is a common phenomenon among renovated terraced and semi-detached houses in Malaysia. This study aimed to explore the constraints to comply with current regulation in the context of urban housing in Malaysia. It qualitatively evaluates the responses of house owners to comply with the regulation's requirements and procedures. In addition, the study also obtained feedbacks from the local authorities on the enforcement of the regulation. A total of twenty participants who are house owners in Hulu Langat District and in Putrajaya voluntarily took part in this study. Sixteen participants were from Hulu Langat District while four were from Putrajaya. Those participants from the Hulu Langat District had been involved in illegally renovating their houses. The study investigated the psychological, social, and economic constraints. The highest intensity of constraint is the psychological constraint. The source of the psychological constraint are incapacity to comply to legal procedures, the reverse effect of enforcement, contradicting views on the requirements of building setbacks, the desire to achieve house owners' dreams, feeling not guilty, and ignorant towards the regulation. Meanwhile, visual influence of the illegally renovated houses and contractors' advices are the major sources of social constraints. Unaffordability to buy new houses, limited available area, and safeguarding investments were noted as the economic constraints. The also study found that a prerequisite to encourage compliance involving individual taste, preference, and image is the shared values between the regulatory bodies and the regulated entities. A model is proposed for curbing illegal renovation and enhancing compliance. The findings may contribute to improving the current legal framework on house renovation through a new approach in formulating a development control regulation that ensures a quality living environment and wellbeing.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**PEMATUHAN KE ATAS UNDANG-UNDANG KAWALAN BANGUNAN BAGI  
RUMAH TERES DAN BERKEMBAR YANG TELAH DIUBAHSUAI DI  
MALAYSIA**

Oleh

**BIBI KHAIRANI BINTI MOHAMED SABRI**

**Julai 2018**

**Pengerusi: Professor Madya Norsidah Ujang, PhD**  
**Fakulti: Rekabentuk dan Senibina**

Ketidakpatuhan terhadap peraturan adalah fenomena yang kerap berlaku di kalangan rumah teres dan berkembar yang diubahsuai di Malaysia. Walau bagaimanapun, tidak terdapat kajian khusus mengenai isu ini yang telah dijalankan di negara ini. Oleh itu, kajian ini bertujuan untuk meneroka kekangan terhadap pematuhan kepada undang-undang semasa dalam konteks kediaman bandar di Malaysia. Kajian ini direka untuk mengkaji secara kualitatif tanggapan pemilik rumah untuk mematuhi keperluan dan prosedur peraturan berkenaan. Bagi meneroka permasalahan ini maklumbalas daripada pihak berkuasa tempatan juga diperolehi. Kajian ini juga melibatkan pihak berkuasa dan penduduk Putrajaya memandangkan Putrajaya telah membuktikan aktiviti ubahsuai rumah yang terkawal. Dua puluh peserta telah mengambil bahagian dalam kajian ini. Enambelas peserta adalah daripada Daerah Hulu Langat, Selangor dan empat daripada Putrajaya. Peserta dari Daerah Hulu Langat adalah dikalangan pemilik rumah yang telah membuat ubahsuai rumah tanpa mematuhi kehendak undang-undang. Kajian ini telah menetapkan tiga kategori kekangan; psikologi, sosial, dan ekonomi. Keamatan kekangan yang tertinggi adalah kekangan psikologi. Punca kekangan ini adalah; ketidakupayaan mematuhi peraturan, hasil yang bertentangan akibat tindakan penguatkuasaan, pandangan yang bertentangan berkaitan peraturan jarak undur bangunan, keinginan pemilik rumah untuk memenuhi inspirasi individu mereka, mengambil pelanggaran sebagai kesalahan yang boleh diterima dan merasa tidak bersalah melakukannya. Pengaruh visual terhadap rumah-rumah yang telah melanggar undang-undang dan nasihat kontraktor adalah sumber utama kekangan sosial. Sementara itu, kekangan ekonomi pula adalah ketidakupayaan membeli rumah baru, ruang yang terhad, dan melindungi pelaburan. Kajian ini juga mendapati

bahawa prasyarat untuk menggalakkan pematuhan terhadap peraturan yang melibatkan cita rasa, keutamaan, dan imej individu adalah nilai-nilai bersama diantara badan pengawalseliaan dan entiti yang dikawal selia. Suatu model menggalakkan pematuhan dicadangkan untuk meningkatkan kadar pematuhan. Hasil kajian ini menyumbang dalam memperbaiki rangka kerja perundangan pengubahsuaian rumah. Ia juga memperkenalkan pendekatan baru dalam membangunkan peraturan kawalan pembangunan bagi memastikan persekitaran hidup yang berkualiti dan sejahtera.



## ACKNOWLEDGEMENTS

My foremost appreciation goes to Allah who granted me the will, perseverance, and opportunity to complete the research. The success would not be possible without the support and input from my thesis supervisory committee. I sincerely thank my supervisor Asso. Prof. Dr. Norsidah binti Ujang for her support and valuable advices in this doctoral research. I sincerely thank my supervisory committee members Dr. Afida Mastura binti Muhammad Arif and Dr. Srazali bin Aripin for their input and modifications.

My profound appreciations to the officers of Building Control Department of all local authorities in Selangor especially the Kajang Municipal Council (MPKj) officers and Putrajaya Corporation who provided valuable information used in the research. A special appreciation also goes to the Council Members of MPKj. who had given their kind support in the data collection process.

My special gratitude and appreciation to all twenty participants, who had greatly given their cooperation in this research. Special recognition is accorded to each person whose names, unfortunately, cannot be disclosed for the purpose of anonymity.

To all staff and lectures of the Faculty Design and Architecture, I truly appreciate their assistance, advice and teaching.

I would like to thank my friends, colleagues and extended family, for their encouragement of my work even if they did not understand what I was doing.

Finally, I am grateful for the love and support of my family, especially to my husband and my personal tutor, who frequent criticisms made me more cautious of my work. To my beloved mother who had encouraged me along the way. To all my children, Asma' ,Aishah, Abid, Afifah , Mardhiah, Iman and Solehah, this is dedicated to all of you with the hope that it will inspire you all in the future.

I certify that a Thesis Examination Committee has met on (date of viva voce) to conduct the final examination of Bibi Khairani binti Mohamed Sabrion her thesis entitled ("Poor Compliance To Building Setback Regulation Among Houseowners Of Terrace And Semi-Detached Houses In Hulu Langat District, Selangor, Malaysia. ")in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the degree of Doctor of Philosophy.

Members of the Thesis Examination Committee were as follows:

**Nur Dalilah binti Dahlan, PhD**

Senior Lecturer  
Faculty of Design and Architecture  
Universiti Putra Malaysia  
(Chairman)

**Nangkula Utaberta, PhD**

Associate professor  
Faculty of Design and Architecture  
Universiti Putra Malaysia  
(Internal Examiner)

**Asiah Abdul Rahim , PhD**

Professor  
Faculty of Architecture and Environmental Design  
Universiti Islam Antarabangsa  
(External Examiner)

**Low Sui Pheng, PhD**

Professor  
School of Design and Environment  
National University of Singapore  
Singapore  
(External Examiner)

**RUSLI HAJI ABDULLAH, PhD**

Professor and Dean  
School of Graduate Studies  
Universiti Putra Malaysia

Date: 31 October 2018



This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

**Norsidah binti Ujang, PhD**

Associate professor  
Faculty of Design and Architecture  
Universiti Putra Malaysia  
(Chairman)

**Afida Mastura binti Muhammad Arif, PhD**

Senior Lecturer  
Faculty of Human Ecology  
Universiti Putra Malaysia  
(Member)

**Srazali bin Aripin , PhD**

Assistant Professor  
Faculty of Architecture and Environmental Design  
Universiti Islam Antarabangsa  
(Member)

---

**ROBIAH BINTI YUNUS, PhD**

Professor and Dean  
School of Graduate Studies  
Universiti Putra Malaysia

Date:

## Declaration by graduate student

I hereby confirm that:

- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced;
- this thesis has not been submitted previously or concurrently for any other degree at any other institutions;
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia, as according to the Universiti Putra Malaysia (Research) Rules 2012;
- written permission must be obtained from supervisor and the office of Deputy Vice-Chancellor (Research and Innovation) before thesis is published (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials as stated in the Universiti Putra Malaysia (Research) Rules 2012;
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name and Matric No.: Bibi Khairani binti Mohamed Sabri, GS 35755

## Declaration by Members of Supervisory Committee

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) are adhered to.

Signature: \_\_\_\_\_  
Name of Chairman  
of Supervisory  
Committee: \_\_\_\_\_

Signature: \_\_\_\_\_  
Name of Member of  
Supervisory  
Committee: \_\_\_\_\_

Signature: \_\_\_\_\_  
Name of Member of  
Supervisory  
Committee: \_\_\_\_\_

## TABLE OF CONTENTS

	Page
<b>ABSTRACT</b>	i
<b>ABSTRAK</b>	ii
<b>ACKNOWLEDGEMENTS</b>	iv
<b>APPROVAL</b>	v
<b>DECLARATION</b>	vii
<b>LIST OF TABLES</b>	xiii
<b>LIST OF FIGURES</b>	xv

## CHAPTER

<b>1</b>	<b>INTRODUCTION</b>	1
1.1	Introduction	1
1.2	Background of the study	2
1.2.1	Poor Compliance with Regulations.	4
1.3	Statement of the Problem	7
1.4	Research Aim	11
1.4.1	Research Questions and Research Objectives	11
1.4.2	The Objectives and Research Questions	11
1.5	Significance of the Study	12
1.6	Scope and Limitation of the Study	12
1.7	Summary	13
1.8	Outline of the Thesis	13
<b>2</b>	<b>LITERATURE REVIEW</b>	15
2.1	Introduction	15
2.2	House Renovation	15
2.3	Decision to Renovate a House	17
2.3.1	The Impact of House Renovation	18
2.3.2	Violation of The Building Setback	19
2.3.3	The Knowledge Gap in House Renovation	23
2.4	Legal framework	23
2.4.1	The Structures and Role of A Local Authority	24
2.4.2	The Town and Country Planning Act (1976) Act 172	25
2.4.3	The Street, Drainage and Building Act (1974) Act 133	26
2.4.4	The Uniform Building By Law 1984 (UBBL)	28
2.4.5	The Legal Procedure of Permit Approval	29
2.4.6	Renovation Control Putrajaya	30

2.4.7	Home Renovation Control in the State of Dutch, Netherlands	31
2.4.8	Home Renovation Control in Singapore	31
2.5	The Theory of Compliance	32
2.5.1	Compliance Motives	35
2.5.2	Calculative Motivation	35
2.5.3	Normative Motivation	36
2.5.4	Social Motivation	37
2.5.5	Compliance Constraint Determinants	37
2.5.6	The context of Compliance Constraint	38
2.5.7	Capacity to Comply	39
2.5.8	Shared Values	42
2.5.9	Enforcement Impact	43
2.5.10	Strategies for Improving Compliance	44
2.6	The Conceptual Framework	45
2.7	Summary	47
<b>3</b>	<b>METHODOLOGY</b>	49
3.1	Introduction	49
3.2	Research Design	49
3.3.	Choice of Research Methodology	50
3.4	Review of Methodology in Previous Studies	50
3.5	Qualitative Approach.	51
3.5.1	Study Using in Depth Interview	52
3.6	Developing Interview questions	53
3.7	Researcher as the Research Instrument	55
3.8	Sampling strategy : the Areas and the Participants	55
3.9	Data Collection Procedure	58
3.9.1	Approaching the Participants	62
3.9.2	Starting the Interview	63
3.9.3	Non-participative Observation	64
3.9.4	Field Notes	65
3.10	Data Analysis	65
3.11	Validity and Reliability	68
3.11.1	Validity	68
3.11.2	Reliability	69
3.12	Ethics	69
3.13	Addressing Biasness	70
3.14	Summary	71

<b>4</b>	<b>RESULTS AND DISCUSSION CONSTRAINT TO COMPLY AND THE IMPACT OF ENFORCEMENT</b>	<b>72</b>
4.1	Introduction	72
4.2	House owners' Profile	72
4.3	Local Authority Officers' Profile	78
4.4	Reason to Renovate	79
4.5	Constraints to Comply to Regulation	80
	4.5.1 Awareness	81
	4.5.2 Constraint to Comply to Setback Regulation	82
	4.5.2.1 Social constraint	82
	4.5.2.2 Economic Constraint	84
	4.5.2.3 Psychological Constraint	86
	4.5.3 Difficulties to Comply to Legal procedures	87
	4.5.4 Putrajaya House owners	99
4.6	The Impact of Enforcement on Compliance	100
4.7	Summary	107
<b>5</b>	<b>RESULTS AND DISCUSSION SHARED VIEWS AND THE STRATEGIES</b>	<b>108</b>
5.1	Introduction	108
5.2	The Local Authority	108
	5.2.1 Enforcement Objective	108
	5.2.2 Enforcement Tools	109
	5.2.3 Enforcement Obstacles	111
	5.2.4 Public Education	114
5.4	House owners	116
	5.4.1 House Owners Perception on Illegal Renovations	116
	5.4.2 House owners' opinions on the Setback Regulation	118
5.5	Developing Strategies in Curbing Illegal Renovation	122
	5.5.1 The Overall Constraints to Comply with Regulations	122
	5.5.2 Suggestions to Enhance Compliance	123
	5.5.2.1 Suggestions by Authority Officers	124
	5.5.2.2 Suggestion by House Owners	125

5.6	Summary	128
<b>6</b>	<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH</b>	<b>130</b>
6.1	Introduction	130
6.2	Summary	130
6.3	Main Research Findings	131
	6.3.1 Economic Constraint	131
	6.3.2 Social Constraint	131
	6.3.3 Psychological Constraint	131
	6.3.4 The Results of Planned Development	132
	6.3.5 Curbing Illegal renovation	132
6.4	Limitation of the Research	132
6.5	Contribution of the Findings	133
6.6	Implications	133
	6.6.1 Implication on Practice	133
	6.6.1.1 The Need to review The Setback Regulation	134
	6.6.1.2 Improving Information Delivery System	134
	6.6.1.3 Improving Service Delivery System	134
	6.6.1.4 Improving Monitoring and Inspection Strategies	134
	6.6.2 Implication on Knowledge	135
6.7	Conclusion	135
6.8	Suggestion for Further Research	135
	<b>REFERENCES</b>	<b>137</b>
	<b>APPENDICES</b>	<b>147</b>
	<b>BIODATA OF STUDENT</b>	<b>162</b>
	<b>LIST OF PUBLICATIONS</b>	<b>163</b>

## LIST OF TABLES

Table	Page
1.1 Amendment of the (Act 133)	10
1.2 Amendment of Local Government (Compounding of Offences) ByLaws	10
1.3 Study Objectives and Sub-research Questions.	11
2.1 Unit Type – Terrace House (Intermediate) (MPKj/JKB/B6-2013)	20
2.2 Unit Type – Semi-detached House (MPKj/JKB/B6-2013)	20
2.3 Legal Requirement and Sanctions under the (Act 133)	26
2.4 Motivational Postures (Braithwaite 2014)	44
2.5 Theoretical Framework	46
3.1 Thematic Analysis Table	68
4.1 Category I) Renovation Without Permit	73
4.2 Category II) Renovation with Permit but not Submitting the As-built Plan	74
4.3 Category III) Renovation with Temporary Permit	75
4.4 Category IV: Putrajaya House owners who had Renovated Their Houses	76
4.5 Demographic Profile of the House owners	77
4.6 Demographic Profile of the Local Authority Officers	78
5.1 Evaluation Criteria on Performance	108
5.2 The Performance of The Tools	109
5.3 Obstacles In Carrying Enforcement Task	112
5.4 Public Participation	114





## LIST OF FIGURES

Figure		Page
1.1	Extension of the Porch Blocking Natural light and Ventilation	5
1.2	Wastewater Channelling Directly Into the Perimeter Drain	5
1.3	Kitchen extension Encroaching the Back Lane	6
1.4	The Porch Extended Beyond the Building Setback	6
2.1	Maslow's Hierarchy of Needs (Maslow 1970)	16
2.2	Setback Line of the Roof Eave, Porch Column and Wall (MPKj/JKB/B6-2013)	19
2.3	Setback Line for Terrace House Renovation (Garis Panduan Perancangan Selangor)	21
2.4	Setback line for semi-detached House(Garis Panduan Perancangan Selangor)	22
2.5	A Renovated Semi-Detached House Without Building Setback	22
2.6	Organisation Structure of Kajang Municipal Council in 2017 (Corporate and Community Development Department of MPKj)	25
2.7	A Schematic Representation of Motivational Posturing Model (Etienne, 2010)	33
2.8	A Schematic Representation of Adaptive Contractarian Model (Etienne, 2010)	33
2.9	A Schematic Representation of Motivation Crowding Model (Etienne, 2010)	34
2.10	Compliance motivation( Siddiki, 2011)	42
2.11	Research Conceptual Framework	47
3.1	The State of Selangor	55

3.2	Renovated terrace house owned by P8	59
3.3	Renovated terrace house owned by P3	59
3.4	Renovated terrace house owned by P13	60
3.5	Renovated terrace house owned by P4	60
3.6	Meeting with one of the authority officer	61
3.7	Renovated semi-detached house in Putrajaya owned by P20	61
3.8	Renovated semi-detached house in Putrajaya owned by P20	62
4.1	Decision to Renovated Houses	79
4.2	Constraints to Comply to Setback Regulation	82
4.3	In-capacity to Comply with Regulatory Procedures	90
5.1	Perceptions on Poor Compliance to Setback Regulation	116
5.2	Constraints to Comply with Regulations	122
5.3	House owners' Suggestion to Curb Poor Compliance	126
5.4	Model of Curbing Illegal Renovation	129

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

This study explores the issue of compliance to building control regulation pertaining to house renovation in the country. The topic attracts the researcher mainly due to her experience as an architect in providing architectural services to clients. As a designer and consultant which deal very much with the authorities and property owners, renovation of the terrace and semi-detached houses are among familiar issues in her professional career. Dealing with several house owners who had been penalised by the authority for illegally renovating their houses has made her more aware of illegal renovations. One common response by these house owners when asked to explain the violations was that they were merely following the actions of their neighbours who renovated their houses but were not penalized by the relevant authorities.

Physical changes to existing houses are unavoidable over time due to owners' changing needs. However, these changes have an impact on surrounding existing development. For instance, renovating an existing terrace or semi-detached houses affects neighbouring houses sharing common walls. Hence, without proper control the renovation may create problems for the neighbours and its surroundings.

The main concern of this study is to understand why owners of terrace and semi-detached houses did not comply to the rules and regulation in carrying out the renovations. The study first explored the constraints faced by owners in complying with the regulations. Interviews were carried out on several local authorities in the state of Selangor in Malaysia to obtain measures in curbing illegal renovation. However, a different scenario was observed in Putrajaya residences. After more than fifteen years the houses in Putrajaya still retain their original designs. Putrajaya authority has strictly stated that "Any additional structures should not blemish the uniformity of the overall designs of the terrace and semi-detached houses (Portal.ppj.gov.my). Therefore, this study involves Putrajaya Corporation and the house owners living in Putrajaya.

#### **1.2 Background of the Study**

Best practices in urban regeneration is to create sustainable communities such as providing quality housing, good public services, safety, security, and employment opportunities (Hearne, 2013). However, maintaining urban communities on a sustainable basis needs feedback on nature as well as from all stakeholders on whom nature depends (Turnbull, 2007). Valuing nature is a

subjective matter and connected to the cultural background of an individual (Cilliers et al., 2011). Hence, among the best practice of the urban agenda in sustaining urban communities is creating a common understanding or common experience among all stakeholders with regard to nature of a place. This implies that all stakeholders should understand the related possibilities and the restrictions (Cilliers et al., 2011). The common value on the possibilities and restrictions is recognised as a collective right which is also the focus of the concept of “right to the city” (Hearne, 2013). Therefore, it is important to build the capacity of urban dwellers in becoming an active agent to influence the development of the city and help to improve the urban space and urban life (Hearne, 2013). In addition, it is crucial to allow continuous participation by different urban stakeholders in ensuring practical, usable, and feasible planning and environmental .

Urbanisation is one of the challenging issues faced by developing countries (Clarke, 1991; Alias, Ali & Wai, 2010) to achieve sustainable communities. Developing countries need appropriate legal and regulatory framework in managing the cities as a reaction to urbanisation (Clarke, 1991). One of the challenges related to legal and regulatory framework in the area of built environment is the issue of planning and development control (Rakodi, 2001; Arimah, & Adeagbo, 2000; Boamah, Gyimah, & Nelson, 2012; Maidin, Kadouf, & Sulaiman, 2012; Awuah & Hammond, 2014). In addition contravention to building control among residential buildings is also a problem which needs further attention (Winayati & Lang, 2004; Alnsour & Meaton, 2009; Sarkheyli et al., 2012). The sources of the contravention highlighted in the literatures were illegal settlements which were closely related to socio economic status. The problems addressed were describing the lack of infrastructure and inadequacy of housing stock. However, in Malaysia compliance to building control among residential buildings related to squatters and illegal settlement is no longer a critical issue.

The housing industries in Malaysia had shown a vast development. Many affordable houses have been provided to facilitate the needs of low and middle income citizen. In the State of Selangor, for instance, the policy of “zero illegal settlement before the year 2005” had resulted in the eradication of many illegal settlements (Arkib, 2004). The squatters were then relocated to the nearest low cost housing provided by the state government. Although there are issues regarding affordability to own a house as reported by Cheah & Almelda (2017) the housing program is still progressing. The plan to achieve the objective of providing affordable housing is reported by the Malaysia Economic Planning Unit in its Eleventh Malaysia Plan 2016-2020 report. Since affordable housing is not a critical issues with regard to residential in Malaysia, what could be the obstacle to create sustainable community in the country? The researcher foreseeing that the habit of renovating houses among local residents needs to be properly examined. The habit had caused uncontrolled and chaotic environment among local houses. Hence enhancing compliance among renovated houses is the challenges to achieve sustainable communities in the country.

Selangor is among the states in Malaysia which is undergoing significant urbanisation. According to the Malaysian Department of Statistics (Department of Statistics, Malaysia, 2016), the state of urbanisation in Selangor in 2010 was among the highest (91.4%). In 2016, Selangor recorded the highest population with 6.3 million people. Selangor is also a leading contributor towards the Country's Growth Domestic Product (GDP) in 2016 which was 22.7% (Bernama, 2017). Thus, the state is facing enormous challenges in enhancing its economic growth which has to be supported by the quality of the living environment. The local authorities in Selangor recorded a total submission of renovation permits for each authority to be in the range of 1000 to 1800 permits per year. Therefore, the total numbers of renovation in the whole state may reach to 12,000 to 15,000 a year. This large number of house renovations has made it into a sizeable industry (Saruwono, Rashdi, & Omar, 2012). Hence this industry does contribute to the state economy but without effective control it may also jeopardise the living quality of residents in the state. Hence, there is a need to create harmonious living among residents in the state in terms of social as well as physical development. Therefore, the study attempts to contribute guidance in reviewing current regulatory framework pertaining to house renovation in the country.

Efforts to enhance compliance to regulation were discussed in several regulatory fields. Deterrence is found to be a traditional way of enhancing compliance. However, gaining compliance through deterrence is not the only solution. Enhancing compliance should not only depend on improving the capacity to detect and correcting the violations. It could also be gained by encouraging the willingness or voluntarily compliance to regulations (Burby, May & Paterson, 1998). According to them there are two separate directions in which the authority will be face with in enhancing compliance. Compliance can be enhanced by improving the capacity of the agency to detect violations and imposed penalties. The alternate approach is to increase the commitment of the regulated entities (e.g. house owners) to comply with minimal interruption by the enforcement agency. Further to that, the authority also had two choices of approach in raising the commitment of the regulated entities to comply. These are between fostering commitment through the strict enforcement of rules and regulation or adopting the facilitative approach by means of cooperation between the authority and the regulated entities to induce compliance. The decision on the choice of actions adopted would result in either negative or positive consequences. Both consequences would bring risks to both the authority and the regulated entity. The choices, impacts, and consequences are the issues which are currently discussed by the scholars in studying the issues of compliance to regulation.

The regulated entities decision to comply with the regulation is another subject which had been studied by many researchers. The theory that is commonly adopted to explain compliance motivation is the "decision making theory" founded by Gary Becker and George Stigler in the 1960's (May & Winter, 2001). Different field of regulations have their own characteristics in terms of the purpose and objectives, enforcement strategies, and their goals. The efficiency or the achievement of the regulation is also being evaluated from different



perspectives of its performance. The concerns are not only compliance but also whether the regulation as administered and enforced would produce socially desirable outcomes (Kagan, 1989). He had suggested that researchers should work on how regulation should be designed and implemented or looking at the conditions under which regulation are effective and responsive.

By adopting motivational theories, several researches were carried out on regulated entities in various regulatory fields such as environmental law (Burby & Paterson, 1993; May & Winter, 2001; May, 2005; De Marco & Vigod, 2007; Hughes & Reynolds, 2009; Gunningham, 2011), fisheries (Kuperan, 1993; Randall, 2004; Gezelius & Hauck, 2011; Siddiki, 2011; Boonstra, Birnbaum, & Bjorkvik, 2016), planning (Zegarac, 1999; Arimah & Adeagbo, 2000; Chan & Yung, 2004; Alnsour & Meaton, 2009; Buitelaar & Sorel, 2010; Boamah, Gyimah, & Nelson, 2012; Sarkheyli et al., 2012; Awuah & Hammond, 2014), and building codes (Burby, May, & Paterson, 1998; May & Wood, 2003; May, 2005; Heijden, 2006). Compliance issues should be studied according to the context of the regulated entities (Gezelius & Hauck, 2011). Since different countries having different social, economic, and cultural status, the issues and problems in complying with regulations faced by the regulated entities are not similar. Thus, each different context of regulatory field and regulated entities demands specific style and strategies in motivating compliance. This scenario shows that compliance to regulation in relation to local house owners is a crucial issue to be studied. It is important to explore how house owners value compliance and how much current strategies manage to motivate them to comply.

### **1.2.1 Poor Compliance with Regulations**

Renovating an existing house involves several construction activities. Omar, Endut, & Saruwono (2010) mentioned six approaches of renovation activities. These are extensions, additions, reduction, division, removal, and relocation. The simplest task in renovation is to replace existing building materials with the new ones. Since the work is done on an existing building, even minor job would involve hacking. Due to that, the plan prepared for a renovation has to indicate the portions of the building which need to be removed and the new elements to be constructed or replaced. There are three aspects of violation which were frequently occurred based on the researcher's own experience in inspecting renovation work. They are Insufficient natural light and ventilation (Figure 1.1), improper channel for wastewater (Figure 1.2), encroachment onto the road reserve (Figure 1.3) and against the minimum building setback (Figure 1.4)



**Figure 1.1: Extension of the Porch Blocking Natural Light and Ventilation**



**Figure1.2: Wastewater Channelled Directly into the Perimeter Drain**





**Figure 1.3: Kitchen Extension that Encroaches the BackLane**



**Figure 1.4: The Porch Extended Beyond the Building Setback**

Insufficient natural light and ventilation mostly occurred among terrace houses due to design constraints. Natural light depends on the front and back façade or from the roof above. Hence, designers need to be creative in allowing sufficient natural light into the houses. Improper wastewater channel is also a common

offence. The wastewater outlet from the kitchen sink has to be connected to the utility hole that leads to the underground sewerage pipe. However, some houses have made a bypass by joining the wastewater outlet direct to the perimeter drain along the back lane. This has let food waste to be channelled into the drain and caused unpleasant smell along the back lane. In addition to that, encroachments of the road reserve did occur where the kitchen of the house was extended on top of the drain reserve. Encroachment can also be found when front porches protrude beyond the boundaries and hanging above the road reserve.

Are house owners aware about the importance of the regulation pertaining to renovations and how aware are they regarding this regulation? Rectifying existing poor compliances to regulation seems to be an arduous task. However, efforts should be focused on preventing future non-compliance. Therefore, this study hope to help policy makers and professionals taking preventive measures to ensure that future house renovation are safe, economic, legally and socially acceptable, and not leading towards degrading the comfort and safety of others in the neighbourhood. The source of this problem may cause misunderstanding of the issue without correct information. The law may be perceived as being too lenient. Therefore, the root of the problem needs to be examined before taking further action to make the law more stringent. The question of why house owners failed to comply to regulations is a crucial question to be answered in this study.

### **1.3 Statement of the Problem**

Issues regarding illegal house renovations are challenging and continue to plague local building controllers. The definition of illegal renovation as used in this study is "a house being renovated without the prior consent of the authority and in violation of the stipulated conditions stated in the authorities' renovation guidelines."

Most violations involve significant changes in the external physical appearance of the house which can be easily noticeable. Jamel & Utaberta (2011) in investigating house changes in the Klang Valley had highlighted the concern on safety of the owner for extending the external wall. The external wall is standing exactly beside the road, which increase the risk of accidents and burglaries. Similar opinions were expressed by Saji (2012 page 147), when he said that "*...modification without consent can even jeopardise the safety aspect especially units without back lane where these buildings are extended until the rear boundary which may increase the risk of fire*". Isnin et al. (2012) had expressed her concern on the future sustainability in relation to renovation. Breaching the setback regulation had cause existing roads to be narrower leading to reduced parking spaces and traffic congestion. Liyana et al. (2015) argued that reducing distance between the rows of terrace houses with respect to the building height can increase air contamination and pollution. Jamel & Utaberta (2011), Isnin et al. (2012) and Saji (2012) have similar opinions on the degradation of house aesthetic value due to different changes in the height and volume. They commented that;

*“ Some of the house have been transformed from double storey to three storey which made the overall housing view does not look like a terrace housing scheme anymore, excessive modification create an unbalanced and unattractive character of the building” Saji (2012 page 147).*

*“Dominance caused by building height and volume differed significantly resulting in maximum overshadowing and loss of day light at the neighbour’s house. Most work resulted in unpleasant architecture of the overall building façade of the housing vicinity” Isnin et al. (2012 page 8).*

*“The material used for the roof and the height of the roof are also different. Hence the peculiarity of the front façade of the terrace.” Jamel & Utaberta (2011 page 1548).*

The interviews conducted with authority officers in Selangor, indicate that the most critical cases of violations are i) renovation which encroaches into the road reserve, ii) renovation which extended up to the boundary line, and iii) renovation by adding another floor level above the existing roof. Under Section 70 (1) of the Street, Drainage and Building 1976 (Act 133), it is stipulated that a permit must be obtained before the commencement of any constructions. Based on “Sasaran Kerja Tahunan” Report for 2007 by Jabatan Kawalan Bangunan, Majlis Perbandaran Kajang, it is estimated that in 2006 about 20% of the renovated houses were found to be constructed without permits. The percentage is expected to be higher as some of the renovations works were carried illegally without any action taken by the relevant authority. After more than ten years the problem has not seen any improvement. A similar situation was observed from the data collected from two other local authorities in the state of Selangor-Selayang Municipal Council (MPS) and the Subang Jaya Municipal Council (MPSJ) in 2016. The percent of house owners who apply for Certificate of Completion and Compliance (CCC) and claimed their deposits when their house renovations were completed were only 10%. This means that 90% of the house owners have not declared their renovation status. The researcher posits that most of the house owners are willing to submit because they do not want to encounter problems about regulation during the construction.

Four local authorities in Selangor had recorded that 40-60% of house owners who had their house renovations approved by the authorities had deviated from the approved plans. This shows that many cases of poor compliance involved constructions which have been conducted in violation of the approved plans. It seems that the approval is obtained as a mean to start the work on the ground but not as a mean to ensure safety and quality of the work. The approval documents are kept as a proof document for complying with the law. Once the permit obtained, the house owner has the choice to follow the approved plan or not.

An article written by Loong (2016) on page 18 in the Star Online, which address the issue of unauthorised or illegal renovation in Selangor, highlighted the

complaints and remarks from house owners who seemed to be trapped in their past decisions. Some of these cases are;

*“Scenario A: I bought my terrace house some 20 years ago, and I didn’t know that I have to obtain building plans for my extended kitchen.”*

*“Scenario B: Waste of time to legalise the balcony that was created above the car porch. After all, I am selling my house to migrate.”*

*“Scenario C: All my neighbours have the same illegal extension to their kitchen without the five feet setback. We just copied them. What should I do then?”*

*“Scenario D: We have obtained the approved building plans from the local council but didn’t procure the Certificate of Compliance and Completion (CCC) from our architects. We are not sure whether the contractors built according to the plans. But, our architects have not issued the (CCC) yet. What can I do?”*

The above quoted remarks describe some of the problems and attitudes of the house owners. They seemed to be indecisive to what are the next steps they should take. The main point which was highlighted is the uncertainty of the house owners towards complying with the regulation of their house extensions. The researcher believes that the issue of poor compliance would remain unresolved without exploring the real problems on the ground.

The barriers to comply with regulation may have come from the house owners themselves or they could have arisen from the regulators or even the authorities regulatory framework. The regulatory problem may relate to changes in the building regulation adopted by the authority delaying the approval process (Ali & Zakaria, 2012) or outdated rules which may not be relevant to current lifestyle. Therefore, understanding current local regulatory practices in controlling renovation is also important besides examining house owners’ responses towards regulation. There are several shortcomings found by Sabri et al. (2017) regarding measures to curb poor compliance among renovated terrace houses. The shortcomings are; constraint in terms of work force in carrying regular monitoring and inspection, inconsistent enforcement, and lacking competent personnel in preparing investigation papers.

Uncertainty regarding the setback requirement has been in existence for a long time. In 1974 this issue was recorded in the parliamentary debates dated 20th Mei 1974 during which the Street, Drainage and Building 1976 (Act 133), was tabled for gazetting. Datuk Mansor bin Mohamad, a member of Parliament back then had argued a point about building setback of a renovated house (Arkib, 1974). He had suggested that the 20 feet or 6.1 meters setback line is relevant for providing open area or compound to terrace houses. He had also recommended that the frontage of terrace houses or the front of the building to be in line to achieve a harmonious facade. He had argued that 15 feet setback on the left or right of the corner lot as not relevant and it should be left to the house owners’ choice . Nevertheless, this suggestion was not carried forward



and until today the setback regulation had received several comments from some interested parties.

Despite these observations, the local building control departments still maintain the guidelines set by the State Planning Authority which remain unchanged until today. The primary reason for this could be that the main concern of the Building Control Department is to carry out regulatory works according to procedures and approving permits is a process that generates income. For instance, enhanced plan fee as required by Clause 17 of First Schedule under the UBBL is imposed on constructions done without permits. The Clause increases the collection of the fees by ten times. This matter may create the perception that the Local Authorities are only concerned on the task of enforcing the law. Whether the house owners comply or not is not their primary concern as long as they have carried their responsibility to regulate the law.

One of the efforts by the Malaysian Federal Government to control illegal renovation work was introducing a higher penalty. Section 70 (Act 133) have been amended in 2007 as shown in (Table 1.1);

**Table 1.1: Amendment of the (Act 133)**

Clause	2007 Amendment
70 (11)	Making any alteration to any building otherwise than is provided for, the fine had increased from one thousand to twenty five thousand Ringgit.
70(13)(b)	Deviating from the approved plan, the fine had increased from ten thousand to fifty thousand Ringgit and three years imprisonment.

Source: Street, Drainage And Building Act 1974 (Act 133)

Local Authorities in Selangor have taken a further step by amending their By-laws in 2013 to implement this new amendment. The By-laws is cited as the Local Government (Compounding of Offences) (Amendment) By-Laws 2013. Under this By-Laws Local Authority is given the power to fine offenders without court orders. The amount of the compound penalty has also been increased as indicated in Table 1.2

**Table 1.2: Amendment of Local Government (Compounding of Offences) By-Laws.**

Offences	Limit of Sum Payable before Amendment (RM)	Limit of Sum Payable after 2013 Amendment (RM)
70 (11)	Not exceeding 500.00	Not exceeding 12,500.00
70(13)(b)	Not exceeding 5,000.00	Not exceeding 25,000.00

Source : Local Government (Compounding of Offences) (Amendment) By-Laws 2013.

The introduction of higher penalties indicates that the government is concerned on the issues of illegal work. However, the researcher believes that penalties might not be the only solution to curb illegal renovation work. According to surveys done in 2015 in the Shah Alam City Council (MBSA) and Klang

Municipal Council (MPK) areas, the percentage of house renovation which deviated from approved plans are estimated to be around 21% to 40%. This indicates that even after the amendment of the quantum of penalty, the rate of non-compliance is still high.

Many factors have influenced house owners in violating the regulations and these will be highlighted later in this study. It is the responsibility of the regulated individuals to abide by the law but to make the laws efficient and acceptable is the responsibility of both the regulatory bodies and the regulated entities. Poor compliance to regulation among the renovated terrace and semi-detached houses might be due to failure in the implementation of the law, or it may be attributed to other factors which the researcher is seeking to explore in this study.

#### **1.4 Research Aim**

The aim of this study is to explore the constraint factors among local house owners in complying with the renovation regulation and developing strategies to curb illegal terrace and semi-detached house renovations.

##### **1.4.1 Research Questions and Research Objectives**

The main research question of the study is why most renovated terrace and semi-detached houses in the urban area are not complying with the home renovation regulation?

##### **1.4.2 The Objectives and Research Questions**

The objective and research question are presented in Table 1.3

**Table 1.3: Study Objectives and Research Questions**

<b>Research Objectives</b>	<b>Research questions</b>
1 . To explore constraint factors that demotivates house owners from complying with the regulation.	What are the difficulties faced by the house owners in complying to the legal requirements and reasons why they are demotivated to comply?
2. To examine the impact of enforcement towards motivating house owners to comply with the regulation.	How current enforcement affects house owners' decision to comply with the regulations and why?

3. To analyse the shared views between the house owners and the local authority regarding the regulation.	How do house owners respond towards regulation and why? What measures taken by the local authority with regards to illegal renovations?
4. To propose strategies in curbing illegal renovations.	What strategies should be adopted in curbing illegal renovations?

### 1.5 Significance of the Study

Systematic planning alone is not sufficient to achieve a sustainable living environment. There is also a need for continuous and effective environmental and planning control. Building regulation should be acceptable and relevant to the social, economic, and psychological needs of urban residents for it to be effective. For that matter, development controller requires public involvement and feedback in performing its role. Poor compliance may indicate rejection or the position of not accepting the rules. Therefore, there is a need for a study to assess the ability of house owners to meet with the regulation and the associated procedures. The sources of the problem relating to illegal house renovation can be discovered by understanding the difficulties and constraints to comply with the current regulation by house owners. Hence, appropriate measures can then be taken to make the regulation more relevant and acceptable by the public.

Examining house owners' attitudes towards current regulation and their perceptions towards compliance may reveal the actual concerns of the house owners regarding this poor compliance. Therefore, the study created a platform to highlight the house owners' views and opinion. It is an initiative to protect the interest of the house owners in renovating their houses. Current enforcement approach of detecting and penalising non-compliance may not result in better compliance. Inappropriate and ineffective enforcement techniques can cause further rejection and objection by the house owners. Therefore, evaluating the impact of enforcement towards motivating compliance is also crucial to avoid wrong strategies and wasting of resources.

### 1.6 Scope and Limitation of the Study

The focus of this study is to understand the sources of the problem that lead to illegal renovations among renovated terrace and semi-detached houses. However, this study only focuses on landed property, which includes double storey terrace medium cost and semi-detached houses. Since the study focused on the constraints to comply with house renovation regulation the regulated entities which is the house owner is the main focus of the study. Thus, the primary source of data for the study is derived from the house owners, who violated the regulation in their attempts to renovate their house.

In the study, the researcher has also identified the different players involved in the renovation process other than house owners. They are the contractors, the consultants (architects/draftsmen and engineers), the local authorities, the financiers and in some cases the developers. However, the researcher assumed that as a regulatory body, the local authority plays the most vital role on issues related to compliance as well as responding promptly to any remarks or complaints from the other parties. Hence, only the local authorities are taken as another source of data collection for this study.

## **1.7 Summary**

In this chapter the researcher provides the background and issues of the study. It also states the aim of the study, research objectives and the research questions. The chapter also includes the significance, scope, and limitations of the study.

Poor compliance to building control regulation among renovated houses is a common phenomenon in Malaysia. This resulted in the degradation of aesthetic values, decrease in natural light, air quality, and open spaces within the residential areas. These in turn contribute to negative impacts on the quality of urban living and environment. The problems have been occurring for many years and curbing the illegal renovations is becoming a challenging task to most local authorities. The study is exploring the constraints to comply to current legal framework that lead to illegal renovation. Feedback from the homeowners who had the experience doing renovation illegally are gathered. This study hoped to initiate the effort to overcome this issue that would avoid further damages to urban living and environment.

## **1.8 Outline of the Thesis**

Chapter 1 - Introduction: The chapter provides the background of the study and issues that prompted this study. It states the aim, research questions and objectives of the research. It also includes the significance, scope, and limitations of the study.

Chapter 2 - Literature Review: The Chapter reviews related literature concerning renovation in order to understand the issues of poor compliance of renovated houses and the theoretical aspects of regulatory compliance.

Chapter 3 - Methodology: The Chapter discusses the methodology, techniques, and procedures and the method to address the research regarding sampling, data collection, and analysis.



Chapter 4 – Results and Discussion I: The Chapter presents the results of the analysed data and discussed the findings of the study. This satisfy Research Objective 1 (RO1) and Research Objective 2(RO2) -RO1 is to explore constraint factors that demotivate house owners from complying with the regulation while RO2 is to examine the impact of enforcement towards motivating house owners to comply with the regulation.

Chapter 5 – Results and Discussion II: This Chapter presents the result of the analysed data and their discussions to answer Research Objective 3 (RO3) and Research Objective 4 (RO4). RO3 is to analyse the shared views between the house owners and the local authority regarding the regulation while RO4 is to propose strategies in curbing illegal renovations. The chapter will also present the suggestions of both the authorities and the house owners on curbing poor compliance.

Chapter 6 – Conclusion and Recommendation: The final Chapter concludes the overall research and research findings. It also states the significance and implications of the research findings .Finally, it highlights the contribution to knowledge that this research has made in improving the implementation of enforcement under the building control regulation. The research ends with the study conclusion and suggestions for future research.

## REFERENCES

- Ali,A., Zakaria,R. (2012) "Complexity of Statutory Requirements: Case Study of Refurbishment Projects in Malaysia", *Journal of Building Performance* 3(1), 49-54.
- Ali, A., Kamaruzzaman, S., Salleh, H.(2008) "The Characteristics of Refurbishment Projects in Malaysia", *Facilities*, 27 (1/2), 56-65.
- Alias,A. ,Ali,A. & Wai,C. (2010)," New Urbanism and township developments in Malaysia", *Urban Design International*,16(2), 76-93.
- Alnsour, J., Meaton, J .(2009) "Factors affecting compliance with residential standards in the city of Old Salt, Jordan", *Habitat International*, 33 (4), 301-309.
- Amir, O. and Lobel,O. (2012) "Liberalism and Lifestyle : Informing Regulatory Governance with Behavioural Research", *European Journal of Risk Regulation*, 3 (1), 17-25.
- ( Arkib 1974 ) Penyata Rasmi Hansard Dewan Rakyat. 20th Mei 1974,*Portal Rasmi Parlimen Malaysia*, <http://www.parlimen.gov.my/> retrieved on 15<sup>th</sup> Mei 2014.
- Arkib (2004) " Selangor Mampu Capai Setinggalan Sifar 2005 ", *Utusan Online*,2Januari2004,[http://ww1.utusan.com.my/utusan/info.asp?y=2004&dt=0102&pub=Utusan\\_Malaysia&sec=Dalam\\_Negeri&pg=dn\\_09.htm](http://ww1.utusan.com.my/utusan/info.asp?y=2004&dt=0102&pub=Utusan_Malaysia&sec=Dalam_Negeri&pg=dn_09.htm), retrieved on 15<sup>th</sup> October 2017.
- Arimah,C., Adeagbo,D. (2000) "Compliance With Urban Development and Planning Regulations in Ibadan , Nigeria" , *Habitat International*, 24 ,279-294.
- Awuah, K.G.B., Hammond, F.N. (2014), "Determinants of Low Land Use Planning Regulation Compliance Rate in Ghana", *Habitat International*, 41, 17-23.
- Ayres ,I., Braithwaite, .J (1992) "Responsive Regulation: Transcending the Deregulation Debate", New York: Oxford University Press.
- Baptiste, I. (2001) "Qualitative Data Analysis: Common Phases, Strategic Differences, Forum", *Qualitative Social Research*, 2(3) .
- bca.gov.sg(2018)[https://www.bca.gov.sg/WorksApprovalNotRequired/insignificant\\_building\\_works.htm](https://www.bca.gov.sg/WorksApprovalNotRequired/insignificant_building_works.htm), retrieved on 3rd August 2018
- Becker, G.S. (1968), "Crime and Punishment: an Economic Approach", *Journal of Political Economy*, 76 (2) ,169-217.
- Bernama (2017), "Selangor Leads GDP contribution to national economy: Azmin", *The Sun Daily*, 7<sup>th</sup> September

2017, <http://www.thesundaily.my/news/2017/09/07/selangor-leads-gdp-contribution-national-economy-azmin> retrieved on 24th September 2017.

Blunt, A. & Dowling, R. (2006) Home (London and New York: Routledge).

Boamah, N., Gyimah, C., Nelson, J.B. (2012) "Challenges to the Enforcement of Development Controls in the Wa municipality", *Habitat International*, vol. 36(1) 136-142.

Boonstra, W.J, Birnbaum, S, Bjorkvik, E. (2016) "The Quality of Compliance : Investigating Fishers' Responses Towards Regulation and Authorities", *Fish and Fisheries* , 1-16.

Bowen, G.A. (2005) "Preparing a Qualitative Research-Based Dissertation: Lessons Learned", *The Qualitative Report* 10 ( 2 ) 208-222.

Bowen, G.A. (2008) "Naturalistic Inquiry And The Saturation Concept: A Research Note", *Qualitative Research*, 8(1), 137- 152.

Buitelaar, E., Sorel, N. (2010) "Between the rule of law and the quest for control: Legal certainty in the Dutch planning system", *Land Use Policy*, 27(3), 983-989.

Burby, R.J., Paterson, R. (1993) "Improving Compliance with State Environmental Regulations", *Journal of Policy Analysis and Management*, 12(4), 753-772.

Bradley, E.H., Curry, L.A. & Devers, K.J. (2007) "Qualitative Data Analysis for Health Services Research: Developing Taxonomy, Themes, and Theory", *Health Research and Educational Trust*, 1758 -1772.

Braithwaite, V. (1995) "Games of Engagement: Postures within the Regulatory Community", *Law and Policy* 17, 225–255.

Braithwaite, V. (2014) "Defiance and motivational Postures", *Encyclopedia of Criminology and Criminal Justice* , 915 – 932

Burby, R.J., May, P., Paterson, R. (1998) "Improving Compliance with Regulations: Choices and Outcomes for Local Government", *Journal of the American Planning Association*, 64 (3), 324-334.

Cantor, E. (2010) "Applying a Voluntary Compliance Model to a Proposed Transportation Safety Regulation", *International Journal of Physical Distribution & Logistics Management* 40 (10) 822-846.

Census (2010) Benci Penduduk Dan Perumahan Malaysia 2010 [www.statistic.gov.my/portal/index.php?option=com\\_content&view=article&id=1215&Itemid=89&la](http://www.statistic.gov.my/portal/index.php?option=com_content&view=article&id=1215&Itemid=89&la) retrieved on 10<sup>th</sup> Mei 2015.

Chan, E., Yung, E. (2004), " Is the development control legal framework conducive to a sustainable dense urban development in Hong Kong ?" , *Habitat International*, 28, 409-426.

- Chayes, A., Chayes, A.H., Mitchell, R.B. (1998), "Managing Compliance: A Comparative Perspective In Engaging Countries: Strengthening Compliance with International Environmental", *Accords*. Editors: Edith Brown Weiss and Harold Jacobson. MIT Press, 39-62.
- Cheah, S.L., Almelda, S.J. (2017) "Pencerahan Isu Rumah Mampu Milik", Utusan Online, 24 Mac 2017  
<http://www.utusan.com.my/rencana/utama/pencerahan-isu-rumah-mampu-milik-1.461014>, retrieved on 21st September 2017
- Clarke, G. (1991) "Urban management in developing countries A critical role", *Cities*, 93-107.
- Cilliers, E.J., Diemont, E., Stobbelaar, D., Timmermans, W. (2011) "Sustainable green urban planning: the workbench spatial quality method", *Journal of Place Management and Development*, 4 (2), 214-224.
- Creswell, J. W. (2007), "*Qualitative Inquiry & Research Design*", 2nd Edition, SAGE Publication.
- DeMarco, J.V., Vigod, T. (2007), "Smarter Regulation, The Case For Enforcement And Transparency", *Journal Of Environmental Law and Practice*, 70(2) 85-113.
- Eccles, T., Pointing, J. (2013), "Smart regulation, shifting architectures and changes in governance", *International Journal of Law in the Built Environment*, 5(1), 71 – 88.
- Edwards, Wolfe (2004), "Compliance : A Review", *Journal of Financial Regulation and Compliance*, 13 (1) 48.
- Eleventh Malaysia Plan (2016-2020) <http://epu.gov.my/ms/rmk/rancangan-malaysia-kesebelas-2016-2020> retrieved on 6th November 2017.
- Etienne, J. (2010), "Compliance Theories", *Revue francaise de science politique*, 3 (60) 493-519.
- Fusch, P. I., Ness, L. R. (2015). "Are We There Yet? Data Saturation in Qualitative Research", *The Qualitative Report*, 20(9), 1408-1416.
- Frey, B. S. (1997), *Not Just For the Money, An Economic Theory of Personal Motivation*, Edward Elgar Publishing. Cheltenham, UK, Brookfield, US.
- (Garis Panduan Perancangan Selangor) Manual Garis Panduan Perancangan dan Piawaian Perancangan Negeri Selangor (Edisi Kedua / Cetakan Kedua)
- Gezelius, S., Hauck, M. (2011) "Toward a Theory of Compliance in State-Regulated Livelihoods: A Comparative Study of Compliance Motivations in Developed and Developing World Fisheries", *Law and Society Review*, 45(2), 435-470.

- Guest, G., Bunce, A., Johnson, L. (2006) "How Many Interviews Are Enough? An Experiment with Data Saturation and Variability", *Field Methods*, 18 (1), 59–82.
- Gunningham, N. (2011), "Enforcing Environmental Regulation", *Journal of Environmental Law*, 23(2), 169-201.
- Hearne, R. (2013) "Realising the "right to the city: Developing a human rights based framework for regeneration of areas of urban disadvantage", *International Journal of Law in the Built Environment*, 5(2), 172-187
- Heijden, J. (2006) "Enforcing Dutch building regulations", Paper presented at the ENHR conference, Urban planning institute of the republic of Slovenia.
- Heijden, J., Jong, D. (2013), "Towards A Better Understanding Of Building Regulation", *Environment and Planning B*, 36(6), 1038-1052.
- Heperle, E., Gough, R.D., Maliene, V., Mansberger, R., Paulsson, J., Podor, A. (2013), "Land management: Potential, problems and stumbling blocks", *Urban Design International*, 18 (3), 252-253.
- Hofeditz, M., Nienaber, A., Dysvik, A., Schewe, G. (2015) "Want to" versus "Have to" : Intrinsic and Extrinsic Motivators as Predictors of Compliance Behavior Intention", *Human Resource Management*, 1-24, (2015) Wiley Periodicals, Inc. in Wiley Online Library.
- Housing Development (Control and Licensing) Act 1966 (Act 118), Laws of Malaysia. Under the authority of The Revision of Laws Act 1968 in collaboration with Percetakan Nasional Malaysia Berhad.
- Hughes, E., Reynolds, L. (2009), "Creative Sentencing and Environmental Protection", *Journal of Environmental Law and Practice*, 19(2), 105-137.
- Hussain, A. A. (1997) *Kerajaan Tempatan : Teori dan Peranan di Malaysia*, Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Isnin, Z., Ramli, R., Hashim, E., Ali, M. (2012) "Are House Alterations Sustainable?", *Journal of Asian Behavioural Studies*, 2 (5), 1-13.
- Jamel, A., Utambarta, N. (2011) "House Renovations And Extensions in Malaysia: an Investigation of Mechanical Changes and Modification of House in Klang Valley, Malaysia" *Advanced Materials Research* Vol 291-294, 1547-1550.
- Jaria Maidin, A., Sarah Sulaiman S., Kadouf H.A. (2012), "The Role of Law in Fostering Sustainability in the Built Environment Industry : The Malaysian Experience", *Australian Journal of Basic and Applied Sciences*, 6 (11) 90-96.
- Kagan, R. A. (1989) "Understanding Regulatory Enforcement", *Law & Policy*, 11 (2) 90 - 116.



- KPKT (2007) Buku Panduan : Pelaksanaan Pusat Setempat Bagi Cadangan Pemajuan. Kementerian Perumahan dan Kerajaan Tempatan .
- Keller, S., Conradin, K. (2017) "Semi-Structured Interviews " , <https://www.sswm.info/content/semi-structured-interviews> , retrieved on 11th November 2017.
- Kwartler, M. (1998), "Regulating the Good You Can ' t Think Of", *Urban Design International*, 3 (1), 13-21.
- Kuperan, K.V. (1993), "Deterrence and voluntary compliance with the zoning regulation in the Malaysian fishery", Thesis (Ph.D.)- University of Rhode Island, 1992. University Microfilms International.
- Kuperan, K. , sutinen , J.G. (1999), A Socio-Economic Theory Of Regulatory Compliance , *International Journal of Social Economics*, 26 ( 1/2/3) , 174-193.
- Local Government Act 1976 (Act 171). Under the authority of The Revision of Laws Act 1968 in collaboration with Percetakan Nasional Malaysia Berhad.
- Lincoln, Y.S. Guba, E.G. (1985) Naturalistic Inquiry. Beverly Hills, CA. Sage.
- Ling, C.H. & Almelda, S.J. in Utusan Online 24 Mac 2017. Pencerahan isu rumah mampu milik. <http://www.utusan.com.my/rencana/utama/pencerahan-isu-rumah-mampu-milik-1.461014> (Retrieved 21 September 2017)
- Liyana , T., Razak, A., Jabarudin, T., Harith, Z. (2015) "Cross Ventilation Analysis on the Effect of Setback Distance of a Terraced House Using PIV," 76(5), 95–99.
- Loong, C.K. (2016) " Making It Legal, Addressing the Issue of Unsanctioned Extensions to floor the kitchen, porch and upper rear floor," , Bizproperty, 3<sup>rd</sup> Disember 2016, page 18, [starbiz@thestar.com.my](mailto:starbiz@thestar.com.my)
- Maidin, A. J (2012), Malaysian Town and Country Planning Law and Procedure, The Malaysian Current Law Journal Sdn. Bhd.
- Maidin, A., Kadouf, H.A., Sulaiman, S. (2012) The Role of Law in Fostering Sustainability in the Built Environment Industry: The Malaysian Experience. *Australian Journal of Basic and Applied Sciences*, 6 (11), 90-96.
- Maller, C., Horne, R. & Dalton, T (2012) "Green Renovations: Intersections of Daily Routines, Housing Aspirations and Narratives of Environmental Sustainability", *Housing, Theory and Society*, 29(3), 255–275.
- Maslow, A. H. (1943) A Theory of Human Motivation. *Psychological Review*, 50(4), 370-96.
- Maslow, A. H. (1970). *Motivation and personality*. New York: Harper & Row.

- Maxwell, J.A, (2008) Designing A Qualitative Study, Chapter in the Book, Leonard Brikman & Debra J.Rog ( Editor) The Sage Handbook of Applied Social Research Method,2 nd Edition, Sage Publications.213-249.
- May ,P (2004) "Compliance Motivations: Affirmative and Negative Bases", Law & Society Review,38(1), 41-68.
- May,P. ( 2005), Compliance Motivations: Perspectives of Farmers, Homebuilders, and Marine Facilities, *Law & policy* 27(2), 317 – 347.
- May,P. (2005),Regulation and Compliance Motivations: Examining Different Approaches, *Public Administration Review*, 65(1), 31-44
- May,P., Wood,R. (2003)At the Regulatory Front Lines: Inspectors' Enforcement Styles and Regulatory Compliance,*Journal of Public Administration Research and Theory*, 13 (2). 117-139.
- May, P.,Winter, S. (1999), "Regulatory enforcement and compliance: Examining Danish agro-environmental policy", *Journal of Policy Analysis and Management*, 18 (4), 625-651.
- McKay, S., Murray, M., MacIntyre, S. (2014), Pitfalls in Protection: How Theory Can Enrich Our Understanding of Regulatory Compliance Our Understanding of Regulatory Compliance Problems in Planning Practice, *International Planning Studies* 20(3), 270-291.
- (MPKj/JKB/B6-2013) Garis Panduan, Syarat-Syarat dan Borang Permohonan Tambahan Rumah Kediaman, Majlis Perbandaran Kajang.
- Merriam,S.B., Associates ( 2002 ) Qualitative Research in Practice: Examples for Adulthood. San Francisco : Jossey-Bass.
- Meriam, S. B.(2009) Qualitative Research, A Guide to Design and Implementation. San Francisco : Jossey-Bass.
- Merriam, S.B. (1998) Qualitative Research and Case Studies Applications in Education.San Francisco : Jossey-Bass.
- Merton,R.K. (1940) "Bureaucratic structure and personality", *Oxford Journals*, 18 (4), 560-568
- Mitchell, R. B.(1993) "Compliance Theory : A synthesis", *Review of European Comparative and International Environmental Law*, 2 (4), 327-334.
- Moore A.T. (1998 ) " Indianapolis's Road to Regulatory Reform A new Path in Licensing and Permit", *Regulation* ,(21) (1) , 49-56.
- Murphy, K., (2016) "Turning defiance into compliance with procedural justice: Understanding reactions to regulatory encounters through motivational posturing", *Regulation and Governance*, 10, 93-109.

Murphy, K., Tyler, T.R., Curtis, A. (2009) "Nurturing Regulation Compliance : Procedural Justice Effective When People Question the Legitimacy of The Law?", *Regulation & Governance*, 3, 1-26.

Nair, V. (2016) "DBKL May Allow Houseowners to Renovate Up to Maximum Available Space", *Metro*, Tuesday, 24 May 2016.

Omar O. E., Endut, E., Saruwono, M. (2010) "Adapting By Altering : Spatial Modifications of Terraced Houses", *Asian Journal of Environment-Behaviour Studies*, 1(3), 2-10.

Onwuegbuzie, A. J., & Leech, N. L. (2007) "Sampling Designs in Qualitative Research: Making the Sampling Process More Public", *The Qualitative Report*, 12(2), 238-254.

Onwuegbuzie A.J., Leech, N.L. & Collins, K.M.T. (2008) "Interviewing the Interpretive Researcher: A Method for Addressing the Crises of Representation, Legitimation, and Praxis", *International Journal of Qualitative Methods*, 7(4), 1-17.

Parker, C. (2006) "The Compliance Trap: The Moral Message In Responsive Regulatory Enforcement", *Law and Society Review*, 40 (3), 591-622.

Pedro, J. B. Meijer, F., Visscher, H. (2010) "Building control systems of European Union countries: A comparison of tasks and responsibilities", *International Journal of Law in the Built Environment* 2 (1), 45-59.

Patton, M.Q. (1989) *Qualitative Evaluation and Research Method*. 2<sup>nd</sup> Edition, Newbury Park. CA. Sage Publications.

Percy, W. H., Kostere, K., & Kostere, S. (2015). Generic Qualitative Research in Psychology. *The Qualitative Report*, 20(2), 76-85

Pieraccini, M., Coppa, S., Lucia, G.A.D. (2016) , Beyond Marine Paper Parks? Regulation Theory to Assess and Address Environmental non-compliance, *Aquatic Conserv: Mar. Freshw. Ecosyst.* 27, 177-196. Wiley Online Library.

Popa, F. (2015), Motivations to Contribute to Public Good: Beyond Rational Choice economic, *Environmental Policy and Governance*, 25, 230-242.

(Portal.ppj.gov.my) [http://portal.ppj.gov.my/c/journal/view\\_article\\_content?groupId=10124&articleId=38930&version=](http://portal.ppj.gov.my/c/journal/view_article_content?groupId=10124&articleId=38930&version=), retrieved on 3<sup>rd</sup> Mac 2018.

Rahim, Z. Hashim, A (2012) "Behavioural Adaptation of Malay Families and Housing Modification of Terrace Houses in Malaysia," *Asian Journal Of Environment-Behaviour Studies*, 3 (8), 1-13.

Rakodi, C. (2001) "Politics and Performance : The Implications of Emerging Governance Arrangements for Urban Management Approaches and Information Systems", *Habitat International*, 27, 523-547



- Randall, J. (2004), "Improving Compliance in U . S . Federal Fisheries : An Enforcement Agency Perspective", *Ocean Development & International Law*, 35, 287–317.
- Roulston, K. (2016) " Research Method , Analysing Interviews . The SAGE Handbook of Qualitative Data Analysis, ©2014 SAGE Publications Ltd. All Rights Reserved , 297-312.
- Ryan, F. , Coughlan, M. , Cronin, P. (2007) "Step-by-step guide to critiquing research. Part 2:" *Qualitative Research British Journal of Nursing* , 16 (12), 738-744.
- Sabri, B., Ujang, N., Arif, A., Aripin, S. (2017) "Measures In Curbing Poor Compliance To Building Control Regulation Among Renovated Terrace Houses," *International Journal of Law and Built Environment*, 6(3) 256-271.
- Saji, N. (2012), "A Review of Malaysian Terraced House Design and The Tendency of Changing", *Journal of Sustainable Development*, 5 (5), 140-149.
- Sandelowski, M., Leeman, J. (2012) "Writing Usable Qualitative Health Research Findings", *Qualitative Health Research*, 22(10), 1404–1413.
- Sarkheyli, E., Sharifi, A., Rafieian, M., Bemanian, M. R., Murayama, A. (2012) "An Investigation of The Reasons for Non-Compliance with FAR regulations in Tehran", *Cities*, 29 (4), 223-233.
- Saruwono, M., Rashdi, A & Omar, E. O. (2012) "Expressions and Stylistic Trends of Homeowners in Terrace Housing", *Asian Journal Of Environment-Behaviour Studies*, 3(9) , 47-58.
- Scholz, J. T. ( 1984 ) " Voluntary Compliance and Regulatory Enforcement", *Law & Policy*, 385 -404.
- Scholz, J. T. (2003) "Contractual Compliance and The Federal Income Tax System", *Washington University Journal of Law and Policy*, 3, 139-203.
- Siddiki, N ( 2011) " Rules and Decision Making: Understanding the factors that Shape Regulatory Compliance" , Thesis (Ph.D.)- University of Colorado Denver, UMI dissertation publishing.
- Street, Drainage And Building Act 1974 (Act 133), Incorporating all Amendments up to 1 January 2006, Under the authority of The Revision of Laws Act 1968 in collaboration with Percetakan Nasional Malaysia Berhad.
- Spindler, G. (1985) "Ethnography: An Anthropological View", *Educational Horizons*, 63 (4) , 154-157.
- Stigler, G. J. (1970) "The optimum enforcement of laws" *Journal of Political Economy*, 70, 526– 536.

(Tenth Malaysia Plan 2010 – 2015), <http://www.epu.gov.my/en/rmk/tenth-malaysia-plan-10th-mp>.retrieved on 12th October 2017.

Town And Country Planning 1976 (Act 172), Incorporating all Amendments up to 1 January 2006, Under the authority of The Revision of Laws Act 1968 in collaboration with Percetakan Nasional Malaysia Berhad.

Turnbull, S. (2007) "A framework for designing sustainable urban communities", *Kybernetes*, 36 ( 9/10),1543-1557.

Tyler,T.R, (2006) “ Psychological Perspective on Legitimacy and Legitimation”, *Annual Review*, 57, 375-400 .

(UB OSC3.0\_NOV/2017) “Borang Semakan Permohonan kelulusan Kerja-kerja kecil dan Ubahsuai, Perbadanan Putrajaya.

Uniform Building By-Laws 1984, Amendment as at 15th December 2008. International Law Book Services, Petaling Jaya, Selangor.

Van Manen,M. (1992) *Researching Lived Experiences*. London . Althouse Press.

Vaismoradi, M., Jones, J., Turunen, H., Snelgrove, s. (2016) “Theme Development In Qualitative Content Analysis and Thematic Analysis, *Journal of Nursing Education and Practice*, 6 (5) ,100-110.

Watt, D. (2007) “On Becoming a Qualitative Researcher: The Value of Reflexivity”, *The Qualitative Report* , 12 (1) , 82-101.

Willig,C.(2013), Interpretation and Analysis,In: The SAGE Handbook of Qualitative Data Analysis, SAGE Publications Ltd. 1-18.

Winayati,L., Lang,H. (2004) “Provision of Urban Services in an Informal Settlement: A Case Study of Kampung Penas Tanggul, Jakarta,*Habitat International*, 28(1), 41-65.

Winter, S. May, P. (2001) “Motivation for Compliance with Environmental Regulations”,*Journal of Policy Analysis and Management*, 20(4) , 675-698.

Weaver,R.K.(2014), “Compliance Regimes and Barriers to Behavioral Changes”, *An International Journal of Policy, Administration, and Institution*, 27(2), 243-265.

Yee, W., Tang, S., Carlos,W. (2014) “Regulatory Compliance when the Rule of Law Is Weak: Evidence from China’s Environmental Reform”, *Journal of Public Administration Research and Theory Advances* , 1 – 28.

Yin, R.K. (2003). *Application of Case Study Research*, Sage Publications, London.

Zegarac, Z. (1999), “Illegal construction in Belgrade and the prospects for urban development planning”, *Cities*, 16(5), 365-370.

Yin (2009) Case study research: Design and Methods. SAGE publications.

Zhang ,H. Lei, S.L. (2013) "Assessing the Renovation of Existing Residential Buildings Regarding Environmental Efficiency" *Asian Journal Of Environment-Behaviour Studies*, 4 (14), 19-36.

